

REMARKS

Claims 1-25 are pending in the application.

Claims 1-25 have been rejected.

Claims 10 and 12-18 have been amended as set forth herein.

Claims 1-25 remain pending in this application.

Reconsideration of the claims is respectfully requested. The Applicants make the aforementioned amendments and subsequent arguments to place this application in condition for allowance. Alternatively, the applicants make these amendments and offer these arguments to properly frame the issues for appeal.

I. CLAIM REJECTION UNDER 35 U.S.C. § 101

Claim 10-17 were rejected under 35 U.S.C. 101 as directed to non-statutory subject matter. Specifically, the Office Action asserted that the method of Claims 10-17 was not tied to a particular apparatus. In response, the Applicants have amended Claims 10 and 12-17 to recite a method performed by an audio apparatus. As such, the Applicants submit that the method of amended Claims 10-17 is tied to another statutory category—an apparatus—that accomplishes the claimed method steps.

Claim 18-25 were rejected under 35 U.S.C. 101 as directed to non-statutory subject matter. Specifically, the Office Action asserted that the specification does not clearly indicate what a computer readable medium is and thus it could include carrier waves, transmission signals or any other kind of signals. As suggested by the Examiner, the Applicants have amended the Specification

to clarify that a computer readable medium excludes carrier waves, transmission signals or any other kind of transitory computer readable medium.

Accordingly, the Applicants respectfully request that the §101 rejections of Claims 10-25 be withdrawn.

II. CLAIM REJECTIONS -- 35 U.S.C. § 102

Claims 1, 7-10, 16-18, 24 and 25 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,719,344 to *Pawate* (hereinafter “Pawate”). This rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131, p. 2100-76 (8th ed., rev. 4, October 2005) (*citing In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. *Id.* (*citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

Independent Claim 1 recites:

1. An apparatus, comprising:
 - a cross correlator operable to receive a first audio signal and a second audio signal, the cross correlator also operable to cross correlate the first and second audio signals to produce a cross-correlated signal;
 - at least one parameter identifier operable to receive the cross-correlated signal and identify a plurality of parameters associated with at least one of the first and second audio signals using the cross-correlated signal; and

a score generator operable to receive the plurality of parameters and generate an indicator identifying an extent to which the first and second audio signals match. (*Emphasis added*).

The Applicants respectfully submit that Pawate does not describe such an apparatus.

Pawate describes A Karaoke machine that detects, a frame energy of a Karaoke singer and a frame energy of an original artist, quantizes the frame energies, compares the quantized frame energies, and generates and displays a score based on the comparison. *See Pawate, Abstract*. Prior to quantizing the frame energy, a reference signal from a Karaoke CD has its vocal signal cancelled and the user's vocal signal mixed with the remaining background music by a mixer (or adder). *See Pawate, Fig. 2, col. 2, lines 28-38*.

The Office Action asserts that this mixer "crosses the signals together." The Applicants respectfully submit that such an interpretation is contrary to the understanding of a person of skill in the art of the recitation in Claim 1 of a cross correlator operable to cross correlate first and second audio signals to produce a cross-correlated signal.

A person of skill in the art would understand a cross correlator to be a circuit or device that measures the similarity of two signals by comparing one signal to a time shifted version of the other signal. The adder of Pawate merely combines its two inputs; it does not time shift either input, nor does it produce any measure of similarity of the two inputs. A person of skill in the art would not understand Pawate's adder as teaching a cross correlator.

For at least these reasons, independent Claim 1 is patentable over the cited reference. Independent Claims 10 and 18 recite elements analogous to the novel and non-obvious limitations emphasized in traversing the rejection of Claim 1 and, therefore, also are patentable over the cited

reference. Claims 2-9, 11-17 and 19-25 depend from Claims 1, 10 and 18, respectively, and include all the limitations of their respective base claims. As such, Claims -9, 11-17 and 19-25 also are patentable over the cited reference.

Accordingly, the Applicants respectfully request that the Examiner withdraw the § 102 rejection with respect to Claims 1, 7-10, 16-18, 24 and 25.

III. CLAIM REJECTIONS -- 35 U.S.C. § 103

Claims 2-6, 11-15 and 19-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pawate in view of U.S. Patent No. 5,565,639 to *Bae* (hereinafter “Bae”). The Applicants respectfully traverse the rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142, p. 2100-133 (8th ed. rev. 4, October 2005). Absent such a *prima facie* case, the applicants are under no obligation to produce evidence of nonobviousness. *Id.* To establish a *prima facie* case of obviousness, three basic criteria must be met: *Id.* First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *Id.* Second, there must be a reasonable expectation of success. *Id.* Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants’ disclosure. *Id.*

In rejecting Claim 2, the Office Action acknowledges that Pawate does not describe a delay identifier operable to identify a delay between first and second audio signals. However, the Office Action asserts that Bae describes a Karaoke machine that compensates for delay between first and second signals. However, the Applicants respectfully submit that any teaching in Bae of compensating for delay between first and second audio signals does not overcome the shortcomings of Pawate identified in traversing the § 102 rejection of Claim 1.

Claims 2-6, 11-15 and 19-23 depend from independent Claims 1, 10 and 18 and include all the limitations of their respective base claims. Therefore, Claims 2-6, 11-15 and 19-23 also are patentable over the cited references. Accordingly, the Applicants respectfully request that the Examiner withdraw the § 103 rejection with respect to Claims 2-6, 11-15 and 19-23.

The Applicants also disagree with the Examiner's rejections of Claims 1-25 based on additional misdescriptions and/or misapplications of the Pawate and Bae references to at least some of Claims 1-25. However, the Applicants' arguments regarding those other shortcomings of the Pawate and Bae references are moot in view of the Claim 1 arguments above. The Applicants reserve the right to dispute in future Office Action responses the appropriateness and the applications of the Pawate and Bae references to the claims of the present application, including the right to dispute assertions made by the Examiner in the Office Action dated September 28, 2009.

CONCLUSION

As a result of the foregoing, the Applicants assert that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.


If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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